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09/823,777	03/30/2001	Milind M. Buddhikot	554-263 (Buddhikot 3-2-5-	6410

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EXAMINER

BRUCKART, BENJAMIN R

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,777

Applicant(s)

BUDDHIKOT ET AL.

Examiner

Benjamin R Bruckart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-9 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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Detailed Action

Status of Claims:

Claims 1-10 are pending in this Office Action.

Claims 7-9 are allowed.

Claims 1-6, 10 remain rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent No. 6,438,652 by Jordan et al.

Response to Arguments

Applicant's arguments filed in the amendment filed 12/9/04, have been fully considered but they are not persuasive. The reasons are set forth below.

Applicant's invention as claimed:

Claims 1-6, 10 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,438,652 by Jordan et al.

Regarding claim 1, in a network that includes at least one origin server (Jordan: col. 5, lines 41-46) and a plurality of network distributed proxy servers (NDPS) in communication with said at least one origin server (Jordan: col. 5, lines 31-41, 50-54), each NDPS including an associated cache (Jordan: col. 7, lines 23-28), a method for constructing a revised cache layout of a media clip at each NDPS in accordance with a lazy caching approach and token exchange, the method comprising the steps of:

(a) receiving rank change information for said media clip from the origin server at said each NDPS (Jordan: col. 8, lines 9-13);

(b) determining a revised cache layout responsive to the rank change information at said each NDPS (Jordan: col. 7, lines 7-22; col. 8, lines 14-28);

(c) receiving a client request for at least one segment of said media clip at one of said each NDPS (Jordan: col. 7, lines 23-25);

(d) returning said at least one requested segment from a cache associated with the one of said each NDPS in the case where a requested segment is stored therein (Jordan: col. 7, lines 25-28); and

(e) otherwise, initiating a token exchange with another NDPS that stores the requested segment (Jordan: col. 7, lines 29-35).

Regarding claim 2, the method of claim 1, wherein the step of determining a revised cache layout responsive to the rank change information, further comprises the step of:

determining whether to cache or discard each of a plurality of segments of said media clip using said rank change information (Jordan: col. 7, lines 7-22).

Regarding claim 3, the method of claim 2, wherein the step of determining whether to cache or discard each of a plurality of segments of said media clip using said rank change information, further comprises the step of:

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re-computing a caching probability for each of said plurality of segments of said media clip and caching those segments whose computed probability is computed to be above a predetermined threshold value and not storing those segments whose computed probability is computed to be below said predetermined threshold value (Jordan: col. 7, lines 7-22; col. 8, lines 6-13).

Regarding claim 4, the method of claim 1, wherein the step of receiving rank change information for said media clip from the origin server, further includes the step of:

periodically collecting said rank change information at the origin server (Jordan: col. 7, lines 7-11).

Regarding claim 5, the method of claim 4, wherein the step of receiving said rank change information from the origin server, further includes the steps of:

(a) maintaining a local hit count for said media clip at each respective NDPS (Jordan: col. 6, lines 28-38; col. 8, lines 37-55);

(b) periodically reporting the local hit count from each respective NDPS to the origin server (Jordan: col. 7, lines 7-11);

(c) combining the local hit counts reported by each respective NDPS at the origin server to determine whether a rank change for said media clip has occurred (Jordan: col. 6, lines 50-64; checks to see if its overloaded); and

(d) reporting said rank change from said origin server to each respective NDSP (Jordan: col. 7, lines 7-22).

Regarding claim 6, the method of claim 5, wherein the local hit count is a measure of a local preference of the media clip (Jordan: col. 8, lines 37-46).

Regarding claim 10, a system for constructing a revised cache layout of a media clip at a plurality of network distributed proxy servers (NDPS) in accordance with a lazy caching approach and token exchange (Jordan: col. 7, lines 7-22), the system including an origin server in communication with said plurality of NDPS's (Jordan: col. 5, lines 32-41), each NDPS including an associated cache (Jordan: col. 7, lines 23-30), the system including:

means for receiving rank change information for said media clip from the origin server (Jordan: col. 7, lines 7-22);

means for determining a revised cache layout responsive to the rank change information (Jordan: col. 6, lines 54-66; updated caching table);

means for receiving a client request for at least one segment of said media clip (Jordan: col. 7, lines 23-35);

means for returning said at least one requested segment from an NDPS cache from among said plurality of NDPS's (Jordan: col. 7, lines 26-29); and

means for initiating a token exchange with another NDPS which stores the requested segment (Jordan: col. 7, lines 29-35).

REMARKS

The Applicant Argues:

“receiving rank change information for said media clip from the origin server at said each NDPS”

“determining a revised cache layout responsive to the rank change information at said each NDPS”

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“initiating a token exchange with another NDPS that stores the requested segment.”

In response, the examiner respectfully submits:

The Jordan reference does teach the claimed limitations. The examiner will further point out with detail the teachings of Jordan that read upon the claim limitations. Col. 6, lines 20-41 of Jordan illustrate the load monitor's attempt at balancing loads among cache servers. “The forward frequency represents the number of times a request for an object has been forwarded.” Some objects can be considered “hot” or in high demand (col. 1, lines 42-46). The media clip is interpreted an object of request in the prior art invention. Requests for the object are counted and interpreted as the ranking of the servers load (col. 6, lines 50-58). “The load monitor examines the load table to see if the server is overloaded with requests, if so, the load monitor finds an under loaded server and assigns it as the new or shared owner of the requested object” (col. 6, lines 58-64). This change of ownership is signaled from the load monitor to the proxy servers and changes the rank of the servers load based on the forwarding requests and load. The determining of the revised cache layout responsive to the rank change information at each NDPS is seen in the load monitors reassigning of the requested to object or the cache requesting it (col. 7, lines 4-12). The assigning and change or sharing of ownership of the requested object is directly responsive to the rank change information from the load monitor. With regards to the token exchange, Jordan teaches col. 7, lines 5-21 and lines 29-35 wherein the cache server and load monitor requests a copy or ownership of the requested object for cache server. Applicant argues the token as having a well-known meaning separate and apart from the media clip as explained in the specification. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The specification defines a token as having two

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values a one or a zero for indicating to store or not store the media clip. Jordan explicitly teaches the cache servers storing requested objects in col. 1, lines 34-36 and cache misses if they don't in col. 6, lines 50-54.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number is (571) 272-3982. The examiner can normally be reached on 8:00-5:30PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin R Bruckart
Examiner
Art Unit 2155

BR

Bharat Barot

**BHARAT BAROT
PRIMARY EXAMINER**